IN THE CLAIMS

Please add the new claims as follows:

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26. The brake system of Claim 1, further comprising:

a second vehicle brake, said vehicle brake and said second vehicle brake being mounted on an axle of a vehicle, said normal source of pressurized hydraulic brake fluid adapted to selectively supply hydraulic brake fluid to said vehicle brake and said second vehicle brake, said backup source of pressurized hydraulic brake fluid comprising a master cylinder;

a first backup fluid conduit extending between said master cylinder and said first vehicle brake to selectively provide fluid communication between said backup source and said first vehicle brake; and

a second backup fluid conduit extending between said master cylinder and said second vehicle brake to selectively provide fluid communication between said backup source and said second vehicle brake.

27. The brake system of Claim 1, further comprising:

a second vehicle brake, said vehicle brake and said second vehicle brake distributed on a first vehicle axle;

a third and a fourth vehicle brake on a second vehicle axle;

a normal hydraulic energy source, having electrically controllable brake valve devices disposed between said energy source and said vehicle brakes;

a brake pedal;

a first brake system sensor that is actuated by said brake pedal, for carrying out brake operations by operation of the electrically controllable brake valve devices;

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each brake circuit being in fluid communication with at least one of said vehicle brakes;

a respective normally open isolation valve being disposed between said master cylinder and said vehicle brakes in each of said two brake circuits, each of said isolation valves being switched into a closed position when said vehicle brakes are supplied with fluid from said normal hydraulic energy source, and wherein at least the electrically controllable brake valve devices are controlled by a control unit; and

a respective fluid separator unit being interposed between each of said first and second vehicle brakes of said first vehicle axle and an associated one of the electrically controllable brake valve devices, said first and second vehicle brakes being connected to a respective one of said isolation valves associated with said two brake circuits of said master cylinder.

28. The brake system of Claim 1, further comprising:

a second vehicle brake, each of said vehicle brake and said second vehicle brake comprising respective wheel brakes for two wheels, in which the wheels are distributed at each end of a front vehicle axle;

said normal source of pressurized hydraulic brake fluid having electrically controllable brake valve devices disposed between said normal source and said wheel brakes, said electrically controllable brake valve devices being controlled by a control unit in response to a braking demand signal;

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a brake pedal;

said backup source comprising a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each of said brake circuits being in fluid communication with a respective one of said wheel brakes; and

a respective normally open isolation valve being disposed between said master cylinder and said respective one of said wheel brakes in each brake circuit, each of said isolation valves being electrically switched into a closed position when said wheel brakes are supplied with fluid from said normal source, one of said normally open isolation valves comprising said valve for selectively preventing the flow of hydraulic brake fluid between the backup source and said vehicle brake.

29. The brake system of Claim 28, said normal source including a motor driven pump for pumping hydraulic brake fluid from a reservoir, wherein said electrically controllable brake valve devices are arranged to block a respective flow path from said normal source to said wheel brakes and to open a respective flow path from said wheel brakes to said reservoir when no braking is being demanded.

30. The brake system of Claim 1, further comprising:

a second vehicle brake, each of said vehicle brake and said second vehicle brake comprising respective wheel brakes for two wheels, in which the wheels are distributed at each end of a front vehicle axle;

a hydraulic fluid reservoir;

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said normal source of pressurized hydraulic brake fluid having a motor-driven pump for pumping hydraulic brake fluid from said reservoir;

a brake pedal;

said backup source of pressurized hydraulic fluid comprising a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each of said brake circuits being in fluid communication with a respective one of said wheel brakes; and

a respective electrically controllable brake valve device associated with each of said wheel brakes, said electrically controllable brake valve devices being arranged to block a respective flow path from said normal source to said wheel brakes and to open a respective flow path from said wheel brakes to said reservoir when no braking is being demanded.

31. The brake system of Claim 18, further comprising:

an axle of a vehicle;

a first wheel brake mounted on said axle;

a second wheel brake mounted on said axle;

a normal source of pressurized hydraulic brake fluid adapted to selectively supply hydraulic brake fluid to said first wheel brake and said second wheel brake;

a backup source of pressurized hydraulic brake fluid comprising a master cylinder;

a first backup fluid conduit extending between said master cylinder and said first wheel brake to selectively provide fluid communication between said backup source and said first wheel brake; and

a second backup fluid conduit extending between said master cylinder and said second wheel brake to selectively provide fluid communication between said backup source and said second wheel brake.

32. The brake system of Claim 18, further comprising:

wheel brakes for four wheels, in which the wheels are distributed with a first and second wheel brake on a first vehicle axle and a third and a fourth wheel brake on a second vehicle axle;

a normal hydraulic energy source, having electrically controllable brake valve devices disposed between said energy source and said wheel brakes;

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said brake system sensor actuated by said brake pedal, for carrying out brake operations by operation of the electrically controllable brake valve devices;

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each brake circuit being in fluid communication with at least one of said wheel brakes;

a respective normally open isolation valve being disposed between said master cylinder and said wheel brakes in each of said two brake circuits, each of said isolation valves being switched into a closed position when said wheel brakes are supplied with fluid from said normal hydraulic energy source, and wherein at least the electrically controllable brake valve devices are controlled by a control unit; and

a respective fluid separator unit being interposed between each of said first and second wheel brakes of said first vehicle axle and an associated one of the electrically controllable brake valve devices, said first and second wheel brakes being connected to a respective one of said isolation valves associated with said two brake circuits of said master cylinder.

33. The brake system of Claim 18, further comprising:

wheel brakes for two wheels, in which the wheels are distributed at each end of a front vehicle axle;

a normal source of pressurized hydraulic brake fluid, having electrically controllable brake valve devices disposed between said normal source and said wheel brakes, said electrically controllable brake valve devices being controlled by a control unit in response to a braking demand signal;

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each of said brake circuits being in fluid communication with a respective one of said wheel brakes; and

a respective normally open isolation valve being disposed between said master cylinder and said respective one of said wheel brakes in each brake circuit, each of said isolation valves being electrically switched into a closed position when said wheel brakes are supplied with fluid from said normal source.

34. The hydraulic brake system of Claim 33, said normal source including a motor driven pump for pumping hydraulic brake fluid from a reservoir, wherein said electrically controllable brake valve devices are arranged to block a respective flow path from said normal source to said wheel brakes and to open a respective flow path from said wheel brakes to said reservoir when no braking is being demanded.

35. The brake system of Claim 18, further comprising:

wheel brakes for two wheels, in which the wheels are distributed at each end of a front vehicle axle;

a hydraulic fluid reservoir;

a normal source of pressurized hydraulic brake fluid, having a motor-driven pump for pumping hydraulic brake fluid from said reservoir;

A' cont

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each of said brake circuits being in fluid communication with a respective one of said wheel brakes; and

a respective electrically controllable brake valve device associated with each of said wheel brakes, said electrically controllable brake valve devices being arranged to block a respective flow path from said normal source to said wheel brakes and to open a respective flow path from said wheel brakes to said reservoir when no braking is being demanded.

36. A brake system comprising:

an axle of a vehicle;

a first wheel brake mounted on said axle;

a second wheel brake mounted on said axle;

a normal source of pressurized hydraulic brake fluid adapted to selectively supply hydraulic brake fluid to said first wheel brake and said second wheel brake;

a backup source of pressurized hydraulic brake fluid comprising a master cylinder;

a first backup fluid conduit extending between said master cylinder and said first wheel brake to selectively provide fluid communication between said backup source and said first wheel brake;

a second backup fluid conduit extending between said master cylinder and said second wheel brake to selectively provide fluid communication between said backup source and said second wheel brake; and

a respective valve arrangement being disposed between said master cylinder and said wheel brakes in each of said first backup fluid conduit and said second backup fluid conduit, which enables said normal source of pressurized hydraulic brake fluid to selectively act upon said respective vehicle brakes via a portion of said backup source.

37. A hydraulic brake system for a vehicle comprising:

wheel brakes for four wheels, in which the wheels are distributed with a first and second wheel brake on a first vehicle axle and a third and a fourth wheel brake on a second vehicle axle;

a normal hydraulic energy source, having electrically controllable brake valve devices disposed between said energy source and said wheel brakes;

a brake pedal;

a first brake system sensor that is actuated by said brake pedal, for carrying out brake operations by operation of the electrically controllable brake valve devices;

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each brake circuit being in fluid communication with at least one of said wheel brakes;

a respective normally open isolation valve being disposed between said master cylinder and said wheel brakes in each of said two brake circuits, each of said isolation valves being switched into a closed position when said wheel brakes are supplied with fluid from said normal hydraulic energy source, and wherein at least the electrically controllable brake valve devices are controlled by a control unit; and

a respective fluid separator unit being interposed between each of said first and second wheel brakes of said first vehicle axle and an associated one of the electrically controllable brake valve devices, said first and second wheel brakes being connected to a respective one of said isolation valves associated with said two brake circuits of said master cylinder, said respective fluid separator units enabling said normal source of pressurized hydraulic brake fluid to selectively act upon said respective vehicle brakes via a portion of said backup source.

38. A hydraulic brake system for a vehicle comprising:

wheel brakes for two wheels, in which the wheels are distributed at each end of a front vehicle axle;

a normal source of pressurized hydraulic brake fluid, having electrically controllable brake valve devices disposed between said normal source and said wheel brakes;

a brake pedal;

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each of said brake circuits being in fluid communication with a respective one of said wheel brakes; and

a respective normally open isolation valve being disposed between said master cylinder and said respective one of said wheel brakes in each brake circuit, each of said isolation valves being electrically switched into a closed position when said wheel brakes are supplied with fluid from said normal source, and at least the electrically controllable brake valve devices being controlled by a control unit in response to a braking demand signal, each of said isolation valves enabling said normal source of pressurized hydraulic brake fluid to selectively act upon said vehicle brake via a portion of said backup source.

39. The hydraulic brake system of Claim 23, said normal source including a motor driven pump for pumping hydraulic brake fluid from a reservoir, wherein said electrically controllable brake valve devices are arranged to block a respective flow path from said normal source to said wheel brakes and to open a respective flow path from said wheel brakes to said reservoir when no braking is being demanded.

40. A hydraulic brake system for a vehicle comprising:

wheel brakes for two wheels, in which the wheels are distributed at each end of a front vehicle axle;

a hydraulic fluid reservoir;

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a normal source of pressurized hydraulic brake fluid, having a motor-driven pump for pumping hydraulic brake fluid from said reservoir;

a brake pedal;

a master cylinder supplying two brake circuits, said master cylinder being actuated by said brake pedal and being intended for carrying out a backup brake operation by muscle-powered energy via said brake pedal, each of said brake circuits being in fluid communication with a respective one of said wheel brakes; and

a respective electrically controllable brake valve device associated with each of said wheel brakes, said electrically controllable brake valve devices being arranged to block a respective flow path from said normal source to said wheel brakes and to open a respective flow path from said wheel brakes to said reservoir when no braking is being demanded, said respective valve devices enabling said normal source of pressurized hydraulic brake fluid to selectively act upon said respective vehicle brakes via a portion of said backup source.